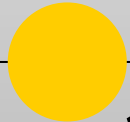


μ RWELL and Mini-Drift Progress



10/22/2018 HEP Group Meeting

Jacqui and Sarah



Leak Tightness

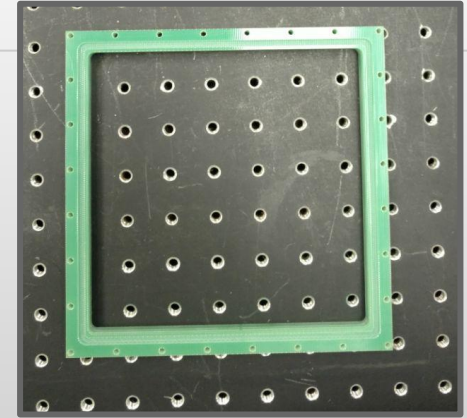
Groove depth and o-ring thickness measurements



Groove Depth

- 8 measurements taken of outer frame's groove depth
- Added offset to account for protruding tip of groove meter

	Top Groove	Bottom Groove
Average [mm]	2.834	2.866
Standard Deviation [mm]	0.014	0.024



Outer frame



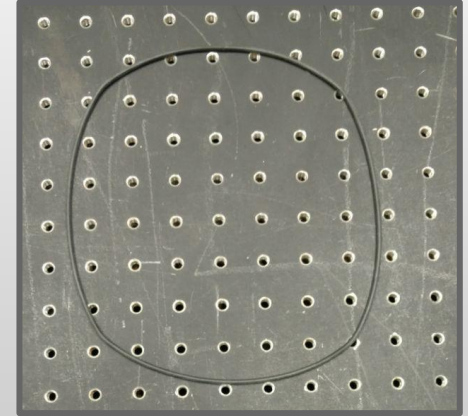
Protruding tip of groove meter



O-Ring Thickness Measurements

- Measurements of o-ring thickness taken with caliper
 - O-rings have comparable thickness
 - About 1.05 mm of o-ring above outer frame

	Top O-Ring	Bottom O-Ring
Average Thickness [mm]	2.904	2.903
Standard Deviation [mm]	0.020	0.023

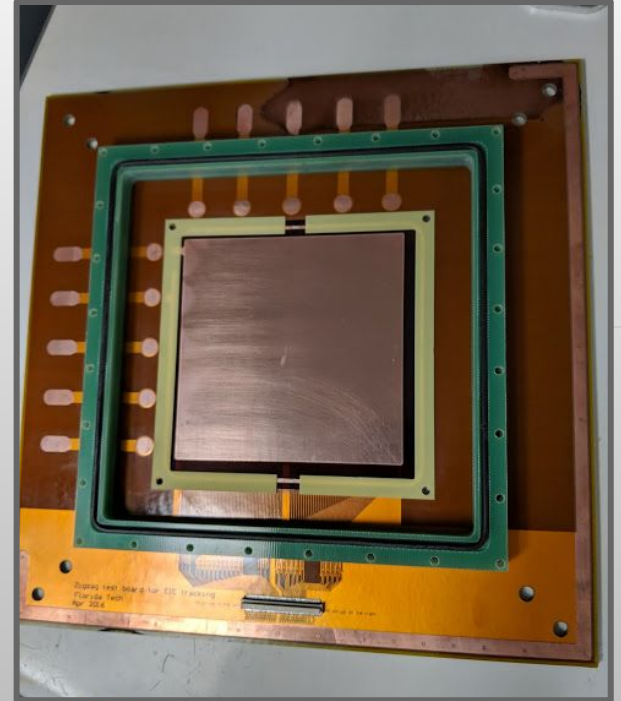


O-ring



Pre-Assembly

Soldering connections and trimming
stack screws

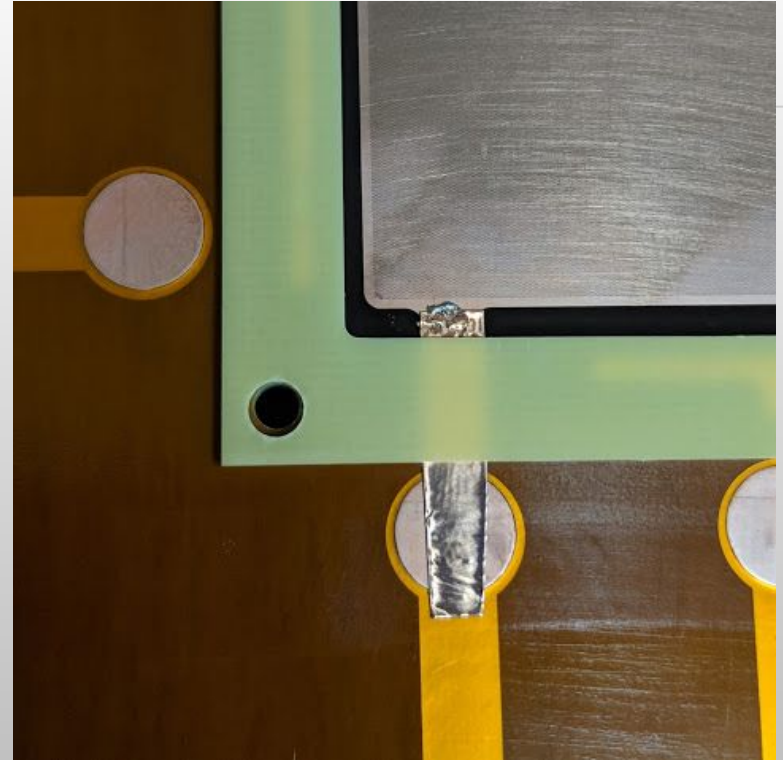


*Configuration of spacers and outer
frame over readout PCB*



HV Connection

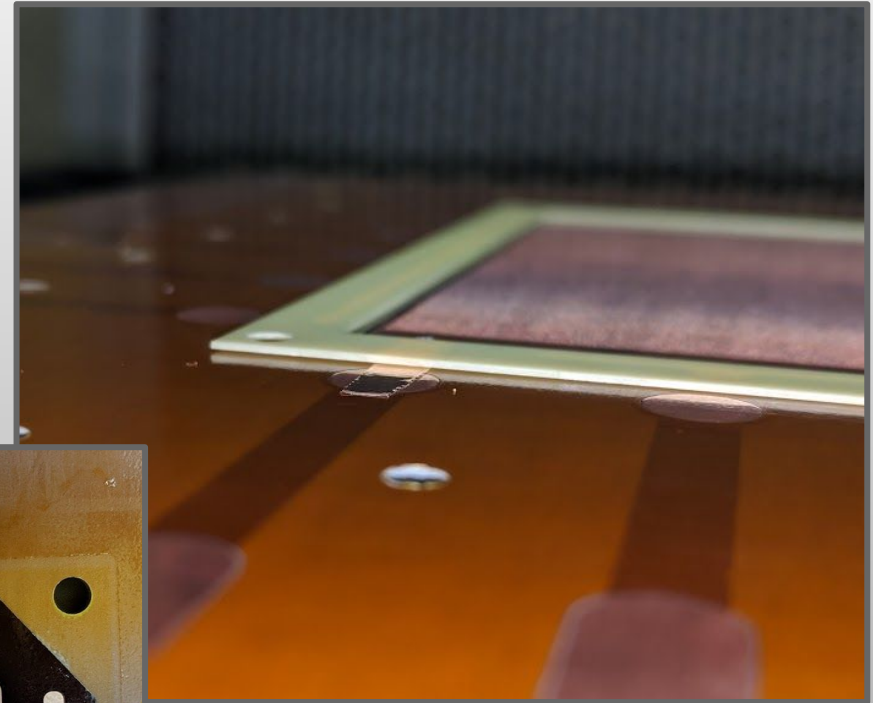
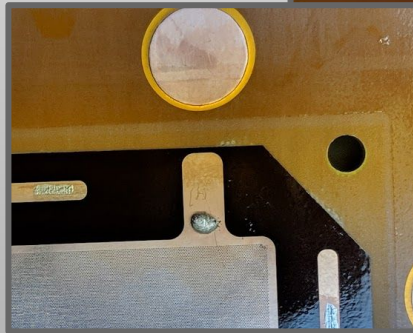
- No connectivity from active area or grounded perimeter strip
- Copper tape connects tab on active area to hv pad
- Pad shown is now connected to pad *outside* of external frame
 - No effect on gas tightness



Connection to active area

HV Connection (cont.)

- Connection to active area tab reinforced with solder
 - Concentrated near active area to avoid interference with spacers

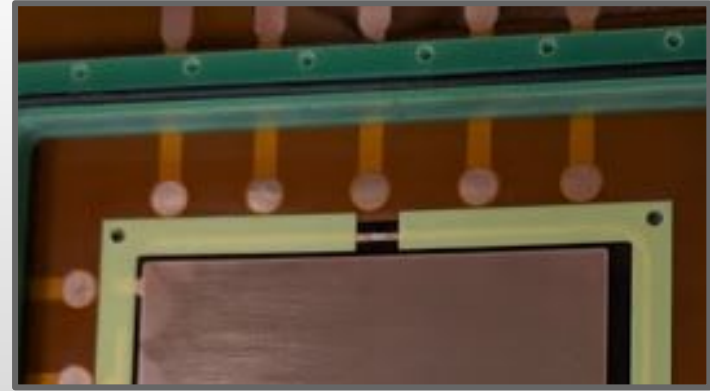


Inner frame over taped connection

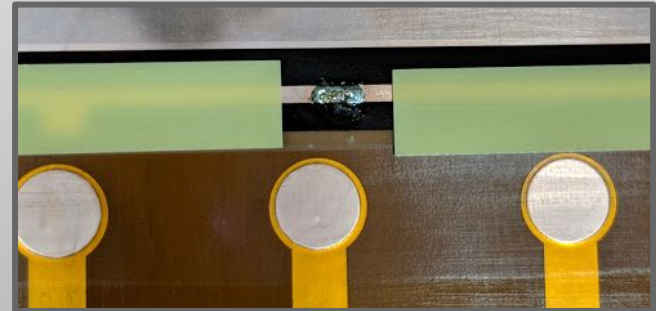


Ground Connection

- Copper strip will be added between grounding ring and another hv pad
- Difficulty priming strip with solder
 - Will not adhere to silver surface
 - Work in progress



Gap between inner frames



Solder on grounding strip



Trimming Screws

- Used exacto knife to trim the screw by ~ 0.56 mm
- Plan to sand the end of the screw to remove jagged edges (see bottom photo)
- 5 screws in total (one spare)

